OPERATOR/SERVICE MANUAL

MODEL: 75D

WALK BEHIND ROLLER

Stone Construction Equipment, Inc.
P.O. Box 150, Honeoye, New York 14471
Phone: (800) 888-9926
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A 100% employee-owned American manufacturer

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75-D ROLLER

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LIMITED WARRANTY

The Manufacturer warrants that products manufactured shall be free from defects in material and workmanship that develop under normal use for a period of 90 days for concrete vibrators and electric pumps, one year for Rhino®, Bulldog®, Wolfpac Rollers™, trowels, Stompers®, saws, plates, engine powered pumps, and 6 months for all other products from the date of shipment. The foregoing shall be the exclusive remedy of the buyer and the exclusive liability of the Manufacturer. Our warranty excludes normal replaceable wear items, i.e. gaskets, wear plates, seals, O-rings, V-belts, drive chains, clutches, etc. Any equipment, part or product which is furnished by the Manufacturer but manufactured by another, bears only the warranty given by such other manufacturer. (The Manufacturer extends the warranty period to "Lifetime" for the drum bearings and seals for the mortar mixers, and agrees to furnish, free of charge, the bearings and seals only upon receipt of the defective parts and a Warranty Evaluation Form. The eccentric bearings are warrantied for two years on the plate compactors and five years on the Bulldog line, the trowel gearboxes are warrantied for two years, plus a Warranty Evaluation Form must accompany the defective parts.) Warranty is voided by product abuse, alterations, and use of equipment in applications for which it was not intended, use of non-manufacturer parts, or failure to follow documented service instructions. The foregoing warranty is exclusive of all other warranties whether written or oral, expressed or implied. No warranty of merchantability or fitness for a particular purpose shall apply. The agents, dealer and employees of Manufacturer are not authorized to make modification to this warranty, or additional warranties binding on Manufacturer. Therefore, additional statements, whether oral or written, do not constitute warranty and should not be relied upon.

The Manufacturer's sole responsibility for any breach of the foregoing provision of this contract, with respect to any product or part not conforming to the Warranty or the description herein contained, is at its option (a) to repair, replace or refund such product or parts upon the prepaid return thereof to location designated specifically by the Manufacturer. Product returns not shipped prepaid or on an economical transportation basis will be refused (b) as an alternative to the foregoing modes of settlement - the Manufacturer's dealer to repair defective units with reimbursement for expenses, except labor, and be reviewed with the Manufacturer prior to repair. A Warranty Evaluation Form must accompany all warranty claims.

Except as set forth hereinabove and without limitation of the above, there are no warranties or other affirmations which extends beyond the description of the products and the fact hereof, or as to operational efficiency, product reliability or maintainability or compatibility with products furnished by others. In no event whether as a result of breach of contract or warranty or alleged negligence, shall the Manufacturer be liable for special or consequential damages including but not limited to: Loss of profits or revenues, loss of use of the product or any associated product, cost of capital, cost of substitute products, facilities or services or claims of customers.

No claim will be allowed for products lost or damaged in transit. Such claims should be filed with the carrier within fifteen days.

Effective December 1, 1995.

MODEL NUMBER _____ Serial No._____

Stone®

Stone Construction Equipment, Inc.
Corporate Offices/Northern Mfg. Plant
32 East Main Street, P.O. Box 150
Honeoye, NY 14471-0150

Phone: 1-800-888-9926
Phone: (716) 229-5141
FAX: (716) 229-2363

MODEL	75H	75H
Drum Type	Dual	Dual
Dimensions		
Operating Wt.	2120 lbs.	960 kg
Shipping Wt.	2205 lbs	1000 kg
L X W X H	109"x35"x46"	2780 x 892 x 1170 mm
Operating Length	109"	2780 mm
Drum Width	30"	760 mm
Drum Dia.	19"	485 mm
Curb Clearance	9.5"	242 mm
Wall Clearance	1.0 / 4.2"	26 / 106 mm
Operating System		
Drive System	Hydrostatic	Hydrostatic
Engine Options	11.3 hp Hatz	8.4 kw Hatz
Engine RPM's	2500 rpm	2500 rpm
Fuel Capacity	2.2 gallons	8.25 Liters
Hydraulic Capacity	3.6 gallons	13.5 Liters
Water System	non-corrosive dual spray bars	non-corrosive dual spray
Water Tank Capacity	12 / 10 gallons	45 / 38 Liters
Performance		
Max. Travel Speed	0-2 mph	0-3.2 km/h
Eccentric Force	5400 lbs.	24 kn
Frequency	3900 vpm	65 hz
Macimum Lift	.02"	.5 mm
Gradability w/vibration w/o vibration	33% 50%	33% 50%
Safety Features	Deadman's Handle	Deadman's Handle
Standards	Freewheel System Parking Brake Adjustable Scrapers	Freewheel System Parking Brake Adjustable Scrapers

SERVICE CHECK LIST

USEFUL INFORMATION

Model/Capacity _____

VIN _____

Purchase Date _____

Engine Make/No. _____

_____

_____

Oil Specifications & Quantity

Engine _____

Hydraulic _____

_____

Service	Date
1	
2	
3	
4	
5	
6	
7	
8	
9	

Safety

It is recommended the driver is adequately trained in the safe operation of this machine, has been authorized to operate it and has sufficient knowledge of the machine to assure himself that it is in full working order before use.

Stone Construction Equipment, Inc.
32 East Main Street
Honeoye, NY 14471
USA

For Service/Spare Parts:
1-800-888-9926
1-716-229-5141
Fax: 1-716-229-2363

HEALTH & SAFETY

SAFETY

These machines are designed to carry out the function of compacting material of the non-cohesive, bituminous and granular varieties.

If used correctly they will provide an effective and safe means of compaction and meet the appropriate performance standards.

It is essential that the drive/operator of the machine is adequately trained in its safe operation, be authorized to drive it, and have sufficient knowledge of the machine to ensure that it is in full working order, before being pout to use.

SAFETY PRECAUTIONS

Before using this equipment, study this entire manual to become familiar with its operation. Do not allow untrained or unauthorized personnel, especially children, to operate this equipment. Use only factory authorized parts for service.

When warning decals are destroyed or missing, contact the Manufacturer immediately at 1-800-888-9926 for replacement. For the safety of yourself and others, it is imperative that the following rules are observed. Failure to do so may result in serious injury or death.

This notation appears before warnings in the text. It means that the step which follows must be carried out to avoid the possibility of personal injury or death. These warnings are intended to help the technician avoid any potential hazards encountered in the normal service procedures. We strongly recommend that the reader takes advantage of the information provided to prevent personal injury or injury to others.

USE COMMON SENSE WHEN HANDLING FUELS

Transport and handle fuel only when contained in approved safety container.

Do not smoke when refueling or during any other fuel handling operation.

Do not refuel while the engine is running or while it is still hot.

If fuel is spilled during refueling, wipe it off from the engine immediately and discard the rag in a safe place.

Do not operate the equipment if fuel or oil leaks exist - repair immediately.

Never operate this equipment in an explosive atmosphere.

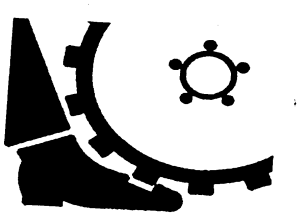
Ear protection required when operating this equipment.

Avoid contact with hot exhaust systems and engines.

Allow engine to cool before performing any repairs.

Never operate unit in a poorly ventilated or enclosed area.

Avoid prolonged breathing of exhaust gases.



Keep feet clear of all drums.

Keep work area free of bystanders

For foot protection, wear steel toe shoes or toe pads.

Caution: Escaping hydraulic fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury.

Hydraulic fluid escaping under pressure from a very small hole can be almost invisible. Use a piece of cardboard or wood to search for possible leaks.

Never use your hands to detect pressure leaks.

Hydraulic tank temperature can reach 180 degrees F maximum.

Operational Safety Precautions

When using this machine the following list of basic Do ‘ s and Don'ts should be applied.

This list is not necessarily a complete list, but applying these rules will greatly reduce the possibility of an accident occurring.

Always

• Carry out a daily pre-check of the machine, see ***Care and Maintenance*** section.

• Look around the machine before starting the engine - children could be out of sight.

• Before starting the engine, ensure the transmission control lever is in the NEUTRAL position.

• Examine working area for possible dangers such as trenches, confined areas and people working.

• Clear away obvious hazards and always operate with caution.

• Ensure you have a clear view when driving.

• Exercise great care when working on gradients - especially when crossing.

• Refuel the roller when the engine is stopped.

• Winch or lift the roller from any situation where it cannot extricate itself.

• Wear appropriate protective clothing, headgear and noise protectors, where necessary.

Never

• Attempt to ‘jump’ obstacles such as curbs and manholes.

• Drive at speed over rough ground - drive slowly.

• Leave the roller unattended with the engine running.

• Carry out maintenance unless the engine is stopped and the drums are blocked.

• Tamper with any of the safety devices on the machine.

• Tighten or disconnect any hose while the engine is running.

Safe Operation Decals

The machine has a number of special decals fitted which draw the users attention to various points of operation or safety.

Before Using the Machine

Read all the decals attached to the machine and fully understand their meaning. If you don't understand their meaning contact your supervisor for clarification.

Condition of Decals

Ensure the decals are always clean and readable, replace when necessary.

Spare decals are obtainable from the Manufacturers Customer Service Department.

Gradient Working

In the ***General Specification*** section of this handbook, details are given of the recommended gradient capability of the machine.

The gradients quoted give a general guide as to performance, but conditions existing on site in terms of ground conditions and vehicle speed will have an effect on machine stability, an allowance for which must be made by the driver.

Maintenance Safety

When carrying out routine or scheduled servicing insure:

The machine cannot be inadvertently started

All fluids are handled with care and protective gloves and eye protectors are used where necessary.

Always service the engine as detailed in the ***Engine Manufacturers Handbook.***

HAZARDOUS MATERIALS

'VITON' Seals and 'O' Rings

WARNING

Seals and 'O' rings are made from 'Viton' - Fluorocarbon Elastomer - which is combustible and can be dangerous if handled incorrectly.

Under extreme conditions, the burning of 'Viton' material may produce **Hydrofluoric Acid and Hydrogen Fluoride.**

If 'Viton' seals and O'rings burn, precautions must be taken to prevent the 'Viton' from coming into contact with the **SKIN**.

Handle ***ALL*** burnt seals and 'O' rings only when wearing Neoprene gloves. Any part of the gloves which have been in contact with 'Viton' should be washed well with Limewater - Calcium Hydroxide solution - immediately after use.

As it is difficult to identify which seals are made from 'Viton' and which are not, we recommend the above instructions be adhered to when handling ANY burnt seals or 'O' rings.

ASBESTOS

WARNING

It is possible that some proprietary parts used on this machine use gaskets which have an asbestos content.

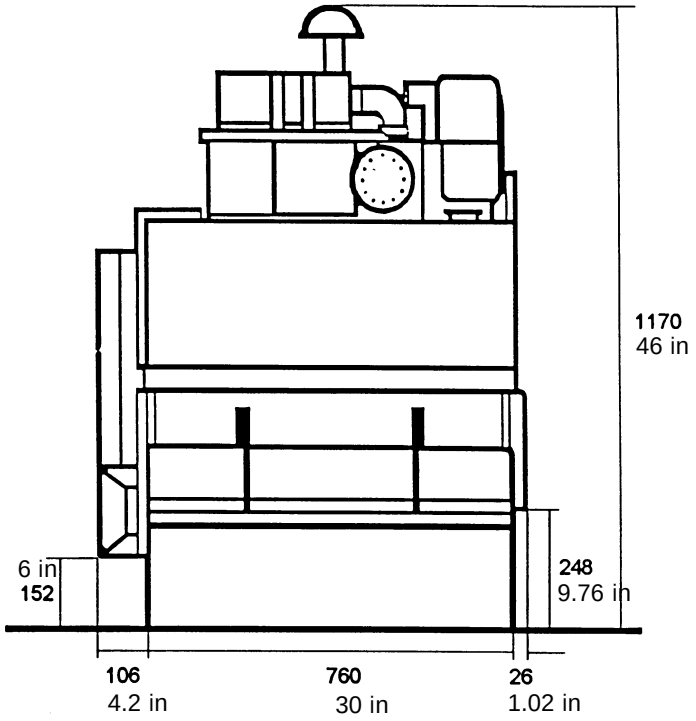
This asbestos will be of the 'white' (chrysotile) type which is a lower risk material.

However, risk does occur if the joint is damaged, therefore when undertaking engine maintenance ensure:

- Protective gloves are used.
- The joint is wet to help contain loose fibers.
- Gasket is not ground off - use a scraper.
- Material is disposed of safely.

ROLLER GENERAL SPECIFICATION

Engine Options	Hatz Diesel ES786 8.4kW (11.2 hp) at 2500 rpm (DIN 6270"B")
Weights	
Total Operating Weight	960 kg / 2117 lbs
per meter of drum width	631 kg / 1391 lbs
Vibrator	
Type	Random Circular Path
Total Centrifugal Force	2400 kg / 5292 lbs
Frequency	65Hz / 3900 rpm
Travel Speed	
Infinitely Variable	0 3.2 km/h (2 mph)
Gradient Performance	
Without Vibration	50%
With Vibration	33%
Water Tank Capacity	
Front	45 liters / 12 gal
Rear	38 liters / 10 gal
Hydraulic Tank Capacity	13.5 liters / 3.5 gal
Fuel Tank Capacity	8.25 liters / 2 gal



Working Principle and Main Features

Introduction

The 75D roller is powered by a single or twin cylinder engine running at a constant 2500 rpm.

Forward and reverse drive to the roller drums is by means of a hydrostatic transmission.

A hydraulic pump, belt driven at constant speed from the engine, supplies oil to a hydraulic motor driving each drum through spur reduction gears.

Rubber mountings at each end of the drums isolate the transmission and the operator from the effects of vibration.

An eccentric shaft mounted on grease packed ball bearings, is contained within each drum to generate vibration. Drive to each shaft is at constant speed from the engine via a drive shaft, flexible couplings, dry plate clutch and re-tensioned 'Vee' belt running on machined pulleys.

Each vibrator shaft, rotating at 3900 rpm to give a frequency of 65 cycles per second, develops a centrifugal force of 1200 kg (2646 lbs). Depending on ground conditions being rolled, this results in each drum striking the surface with a force up to 8.128 kg. Each roller drum is of heavy duty steel construction with seam welded plates to prevent ingress of water.

A removable cast aluminum side shield protects and provides access to the drive chain, clutch and vibrator drive belt.

Two water tanks, front 45 liters (12 gals) and rear 38 liters (10 gals), are supplied with brass water taps, noncorrosive spray bars and large diameter filling caps for easy cleaning.

Front and rear adjustable scraper bars are provided and a parking brake is fitted in the transmission as an added safety precaution.

Additionally, when rolling in a confined space, the speed can be regulated to give the degree of control necessary for safety under these conditions.

Importance of the Deadmans Safety Lever

The vibrating roller will not move forward or in reverse until the deadmans safety lever is pressed home and held by the operator.

The action of pressing the lever opens the hydraulic circuits and when the forward/reverse speed lever is engaged enables the roller to move off in either direction and at the required speed. Immediately after, the operator releases the deadmans safety handle the hydraulic circuits are automatically closed and instantly stop the roller--either on the level or on an incline and regardless of the position of the forward/reverse speed lever.

The importance of this built-in deadmans safety measure will be instantly recognized and understood by all existing owners, hirers, operators and drivers of vibrating rollers.

Direction Lever

The direction lever selects forward, reverse or neutral. Speed in either direction is increased as the lever moves away from neutral and is decreased as it moves back. For a smooth, progressive acceleration or deceleration always move the lever gently and slowly. The lever is spring loaded to positively locate in a notched control plate so that neutral position is easily found and also to stop the lever creeping.

Vibrator Lever

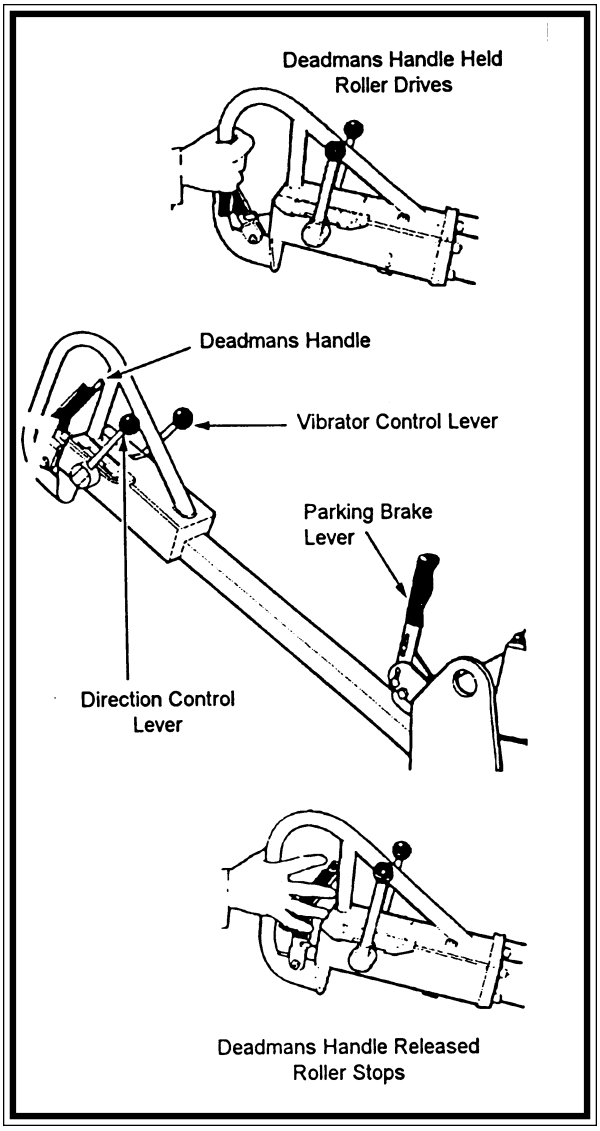
The vibratory lever is of the spring loaded 'over center' type and controls the clutch which starts and stops the vibrator. Move the lever forward to start the vibrator and backward to stop it. Never operate the vibrator when the roller is standing on a hard surface.

Deadmans Safety Lever

The deadmans safety lever is a quick acting device designed to protect the operator and anyone nearby in the event of involuntary release of the steering controls. All the time the lever is held in against the handgrip, the roller can be driven. Immediately the lever is released, the hydraulic motor drive locks and stops the roller instantly.

Parking Brake

A parking brake is provided in the drum transmission for additional safety when the roller is left unattended.



Starting the Engine

Before starting the engine make sure the hydraulic and diesel fuel tanks are full, the direction lever is in neutral, the vibrator lever is in the disengaged position and the parking brake is on.

Follow the instructions given in the engine manufactures handbook supplied with the roller. If this is not immediately available, or has gone astray, make certain the sump oil is to the top dipstick mark and the air cleaner is in good condition and correctly fitted and proceed as follows:

Set the start/stop control to the 'start' position, i.e. lever almost vertical, and set the speed control lever to the full speed position, i.e. lever pulled fully towards starting handle.

Lift and hold the decompressor levers and use the starting handle to crank the engine as fast as possible.

Push decompressor to the horizontal and carry on cranking until the engine fires.

When the engine runs evenly turn the start/stop control to the 'run' position.

Driving the Roller

With the engine running release the parking brake and check again the direction lever is in neutral, take a firm hold of the handlebar and squeeze the deadmans safety lever in flush with the handgrip and hold.

Slowly move the direction lever in the direction you wish to travel.

To increase speed, move the lever gradually towards the full extent of travel until the required speed has been attained.

When constantly rolling forwards and backwards, move the direction lever forward into neutral, pause for a moment, then move into reverse, gradually increasing speed as the drive is gently taken up.

Apply the same procedure when changing from forward to reverse drive.

Gentle movement of the control lever between forward and reverse minimizes any strain on the transmission and prevents skidding on the ground each time the direction of travel is changed.

Stopping or Parking the Roller

Disengage the vibrator if it has been used and move the direction lever to neutral.

Release pressure on the deadmans handle.

Move the engine speed control lever to the slow position to allow the engine to tick over.

Do not leave the roller unattended with the engine running. If you are going to leave the roller then stop the engine and engage the parking brake.

In an emergency, the roller stops immediately by releasing pressure on the deadmans lever. This locks the hydraulic motor drive and stops the roller.

Immediately after stopping, disengage the vibrator to avoid indentations in the surface being rolled, and move the direction lever into neutral.

To stop the engine turn the stop/start lever to the stop position.

When Work is Finished, stop the roller and park as described. If temperatures are likely to fall below freezing point, drain the water tanks and spray bars.

Water Tank and Spray Bars

Spraying the drums with water during rolling is essential to prevent tarmacadam picking up on the drums surface.

For this purposes 45 liter (12 gal) front and 38 liter (10 gal) rear water tanks mounted above each drum discharge water thorugh brass spraybars.

A tap in each feed pipe varies the water flow rate as required, or cuts it off where hardcore and similar non-sticky surfaces are being rolled.

Bearing Lubrication

The vibrator shaft bearins are grease packed on assembly and require no periodic lubrication.
When bearings are repacked or replaced, fill the bearing but not the cavities on either side of the bearing with ALVANIA R3 grease. All other bearings are sealed for life.

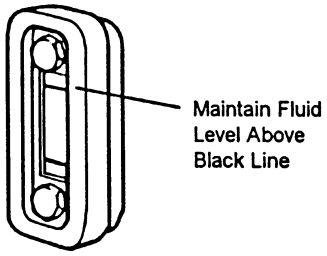
Hydraulic System

At all times take great care to prevent diret, grit and similar foreeign mater from entering the hydraulic system. They are its enemies.

Always use a clean fluid container and be especially careful when checking the level of fluid in the tank, when topping up, and carrying out the annual drainage, cleaning and refilling operation.

Daily

Check Level of hydraulic fluid. Correct level is shown on sight glass on the side of the tank. Use Shell 'Tellus 37' or an equivalent.

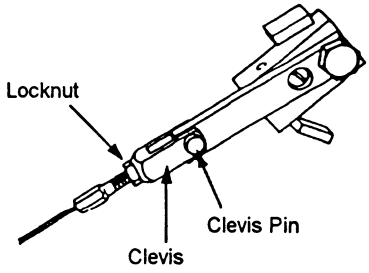


If ambient temperatures are outside -15 degrees Celsius (-5 degrees Fahrenheit) or +40 degrees Celsius (104 degrees Fahrenheit), consult manufacturer for further details.

Clean down roller. At end of working day, remembering to drain the water and spray bars when low temperatures are expected.

First Week and then Monthly

Vibrator Clutch. Check movement on clutch plate. The plate should lift off approximately 2 mm (0.078 in) when disengaged and when in the engaged position the operators lever should be free from the stop by approximately 10 mm (0.393 in).

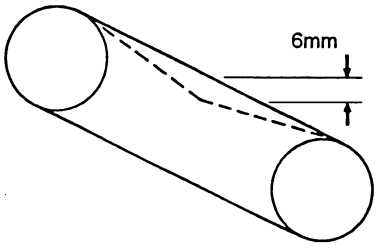


If adjustment is needed this should be done on the cable at the operators end.

Monthly

Check hydraulic system for leaks and all bolts, nuts etc. for tightness.

Check Pump Belt Tightness. Remove belt guard and check belt for tightness. Tension is corrrect when a maximum of 6 mm (236 in) play at center of belt is achieved. If adjustment is necessary slacken the three bolts on the pump mounting bracket and slide bracket on its slotted holes until corerectly adjusted. Tighten bolts and refit belt guard.



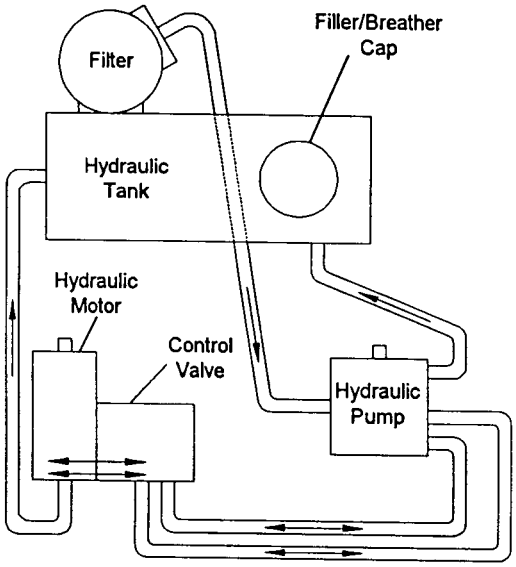
Hydraulic System

Drain the Hydraulic System. Remove the drain plug in the side of the tank.

Disconnect return hose from the elbow on tank lid and suction hose from cast filter head.

Remove hydraulic tank from roller by undoing 12 mm bolts at each end of the tank.

Disconnect and discard filter cartridge from filter head on side of hydraulic tank.



Remove the twelve 8 mm bolts securing lid and carefully lift off lid cover.

Discard sealing gasket and sealing washers.

Unscrew the six screws holding the breather/filler cap assembly to the tank lid.

Discard the complete assembly complete with gasket.

Thoroughly clean out the interior of the tank, flushing through with clean solvent until the interior is clean.

Fit a new filter body and sealing ring to the filter head.

Reassemble the tank and lid using a new gasket, renew the sealing washers on the 8 mm bolts.

Refit the hydraulic tank to front and rear water tanks using existing 12 mm bolts, replace the 12 mm spring and flat washers.

Refit the suction hose to outlet on filter head and the return hose to elbow on the tank lid.

Fit a new breather/filler cap assembly to the tank lid using the new gasket and screws supplied with the assembly.

Carefully clean and replace the magnetic drain plug using new sealing washer.

Fill the hydraulic tank to the correct level on the sight gauge with clean, fresh Shell Tellus 37 hydraulic oil.

Before starting the engine, the hydraulic system must be 'bled' to remove trapped air. See Bleeding Hydraulic System procedure in the maintenance section.

The engine may now be started and left running for 10 minutes.

Check the hydraulic system and tanks for leaks and check oil level.

Top up as necessary.

Gear Drive

Remove the side cover and check there is sufficient lubricant on the drive gears. If necessary, lightly regrease the gears with Rocol Grease Type MG.

Diesel Power Unit

For routine maintenance oil changes, adjustments etc., refer to the engine manufactures handbook supplied with each roller.

Check Daily

- Engine sump oil level
- Fuel tank level
- Tightness of engine mounting bolts.

Air Cleaner

Maximum engine protection against dust is possible only if the air cleaner is serviced at regular intervals. No hard and fast rules apply to the regularity of servicing because operating conditions vary so much.

The following is a guide, but users should ensure a regular service schedule is maintained consistent with the usage and working conditions of the roller.

A dust cap helps remove dirt from the air before the air is filtered. Depending on site conditions, the dust cap should be removed and emptied at regular intervals.

In Severe Conditions, this May be Necessary Daily

When the dust cap is removed, clean the filter element using low pressure compressed air to blow the dust out taking care not to damage the element.

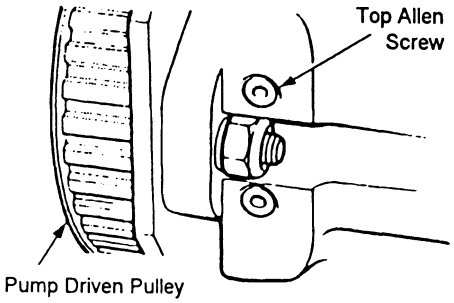
The filter should be changed annually or after six cleanings.

Bleeding Hydraulic System

Remove the top allen screw plug from the pump body.

Operate the engine decompressor and crank the engine slowly until a continuous stream of hydraulic oil pours from the hole with no air bubbles. Replace the allen screw plug securely.

Top up the hydraulic tank to the correct level on the sight gauge and replace the filler/breather cap securely.



Deadmans Safety Lever

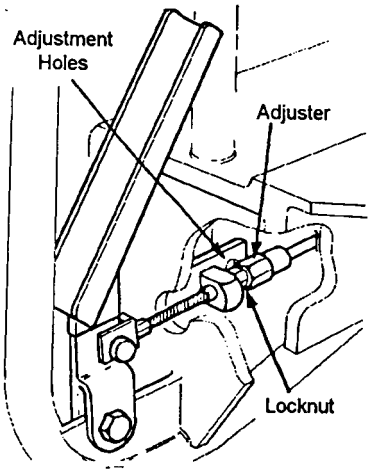
Check for correct operation. A slack cable means sluggish drive or no drive at all. Adjust by slackening off the locknut at the control arm end of the cable.

The retaining block is fixed to a plate with three adjustment holes. If cable stretch is more than range of adjustment obtained by screwing the outer cable out of the retaining block, all adjustment should be re-

moved by screwing the outer cable fully home into the retaining block. The block should than be unbolted from the retaining plate and moved to the next hole.

Normal adjustment may now be obtained by screwing the outer cable through the remaining block.

Adjust the cable for the following conditions:



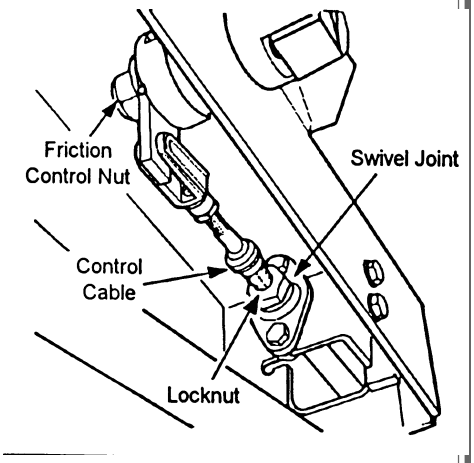
- With the deadmans control released, the hydrostatic transmission is fully locked and the roller will not move if the direction control lever is moved into either forward or reverse.

- With the deadmans control in midway position the roller transmission can freewheel allowing the roller to be pushed forward or backwards.

- With the deadmans control fully degressed, the transmission transmits full drive when the direction control lever is operated.

Forward and Reverse Control Lever

This is connected to the pump control lever by a "teleflex" stretchless cable. If the roller creeps in either direction when the control lever is in the neutral notch on the control gate, make the following adjustment.



Slacken off one of the locknuts holding the outer cable through the swivel joint, either at the machine of the cable, or at the control arm end of the cable.

Adjust the outer cable in or out of the swivel until the creep stops and then retighten the locknut.

The lever is held in the desired position by means of a friction washer. Friction washer tension is adjusted by means of a hexagonal nut and may be tightened or slackened.

Parking Brake Adjustment

Brake shoe wear or cable stretch will affect handbrake efficiency.

To adjust the cable:

Remove the molded plastic top of the handbrake lever to reveal a hexagonal adjuster which should be turned clockwise to take up any slack.

Take care not to over adjust the brake as this may cause a permanent application of the brake, leading to overheating, excessive drag on the engine and damage to the brake shoes.

'Vee' Belt Adjustment

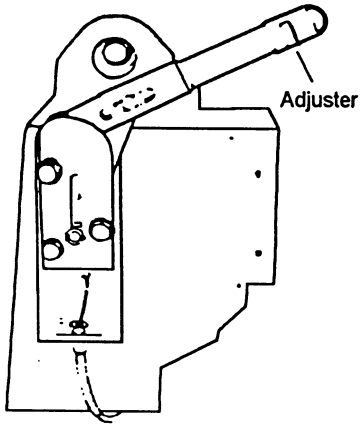
Remove side cover and inspect belt for signs of a loose cover, cover swell, excessive wear or damage and that the belt is running correctly in the pulley grooves.

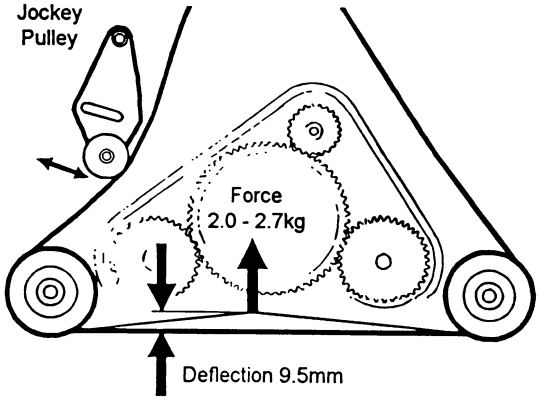
Adjusting Belt Tension

Check tension by measuring deflection of the belt midway between the two vibrator shaft pulleys.

When correct this deflection should measure 9.5 mm (.374 in) when a deflecting force of between 2-2.75 kg (4.5 - 6.0 lbs) is applied.

This may be adjusted by moving the jockey pulley position.





EXPLODED DIAGRAMS & PARTS LIST

Left Hand Side Assembly 18,19

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Drum Brake Assembly 22,23

Transmission Drive Assembly 24,25

Vibrator Drive Assembly 26,27

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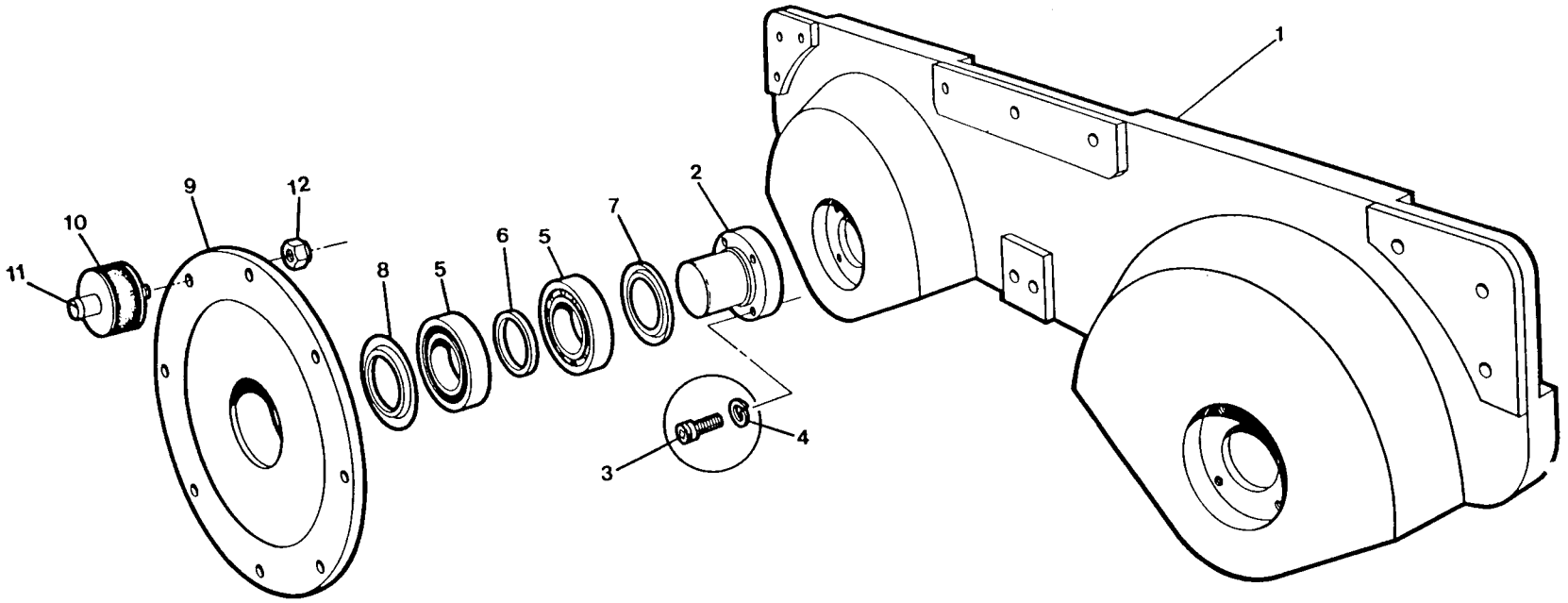
Left Hand Side Plate Assembly



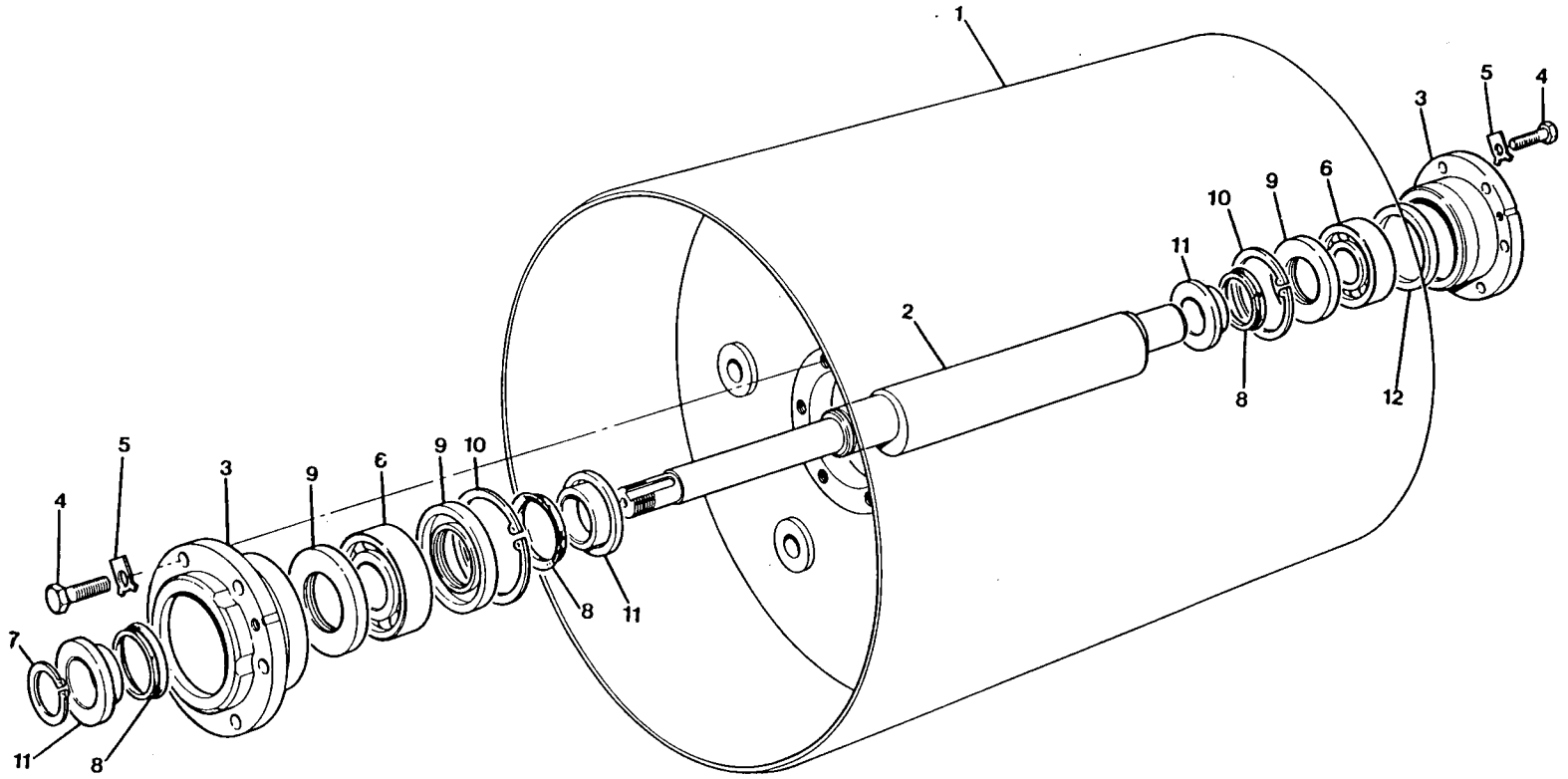
Left Hand Side Plate Assembly

Item	Part No.	Description	Qty.
1	70318	L.H. Sideplate	1
2	70315	Bearing Hub	2
3*	70726	Capscrew	8
4	70128	Washer	8
5	70197	Bearing	4
6	70321	Spacer	2
7	70207	Nilos Ring	2
8	70208	Nilos Ring	2
9	70316	A.V. Mounting Plate	2
10	70431	A.V. Mount	16
11**	70219	Drive Pin	16
12***	70117	Nut	16

Item	Part No.	Description	Qty.

REMARK: *** Bearing Hub to Side Plate** **** A.V. Mounts to Mounting** ***** Plate**

Roll Assembly



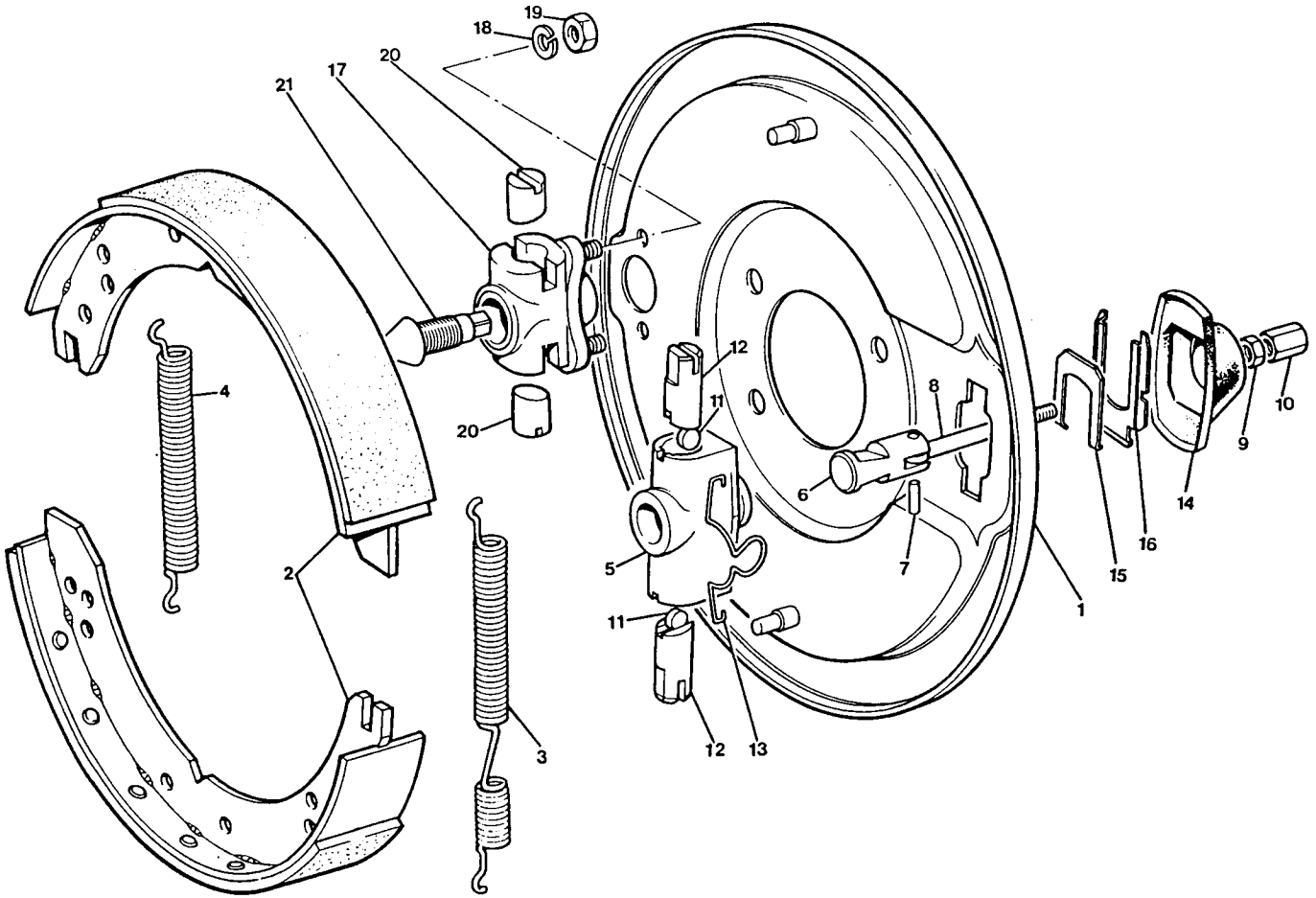
Roll Assembly

Item	Part No.	Description	Qty.
1	70270	Roll	2
2	70273	Vibrator Shaft	2
3	70189	Housing	2
4	70113	Bolt	12
5	70428	Tab Washer	12
6	70177	Bearing	2
7	70179	Circlip	1
8	70196	'V' Ring Seal	3
9	70190	End Cap	3
10	70579	Circlip	2.
11	70516	Seal Retainer	3
	70517	'O' Ring	3
12	70188	End Cap	1

Item	Part No.	Description	Qty.

REMARK:

Drum Brake Assembly



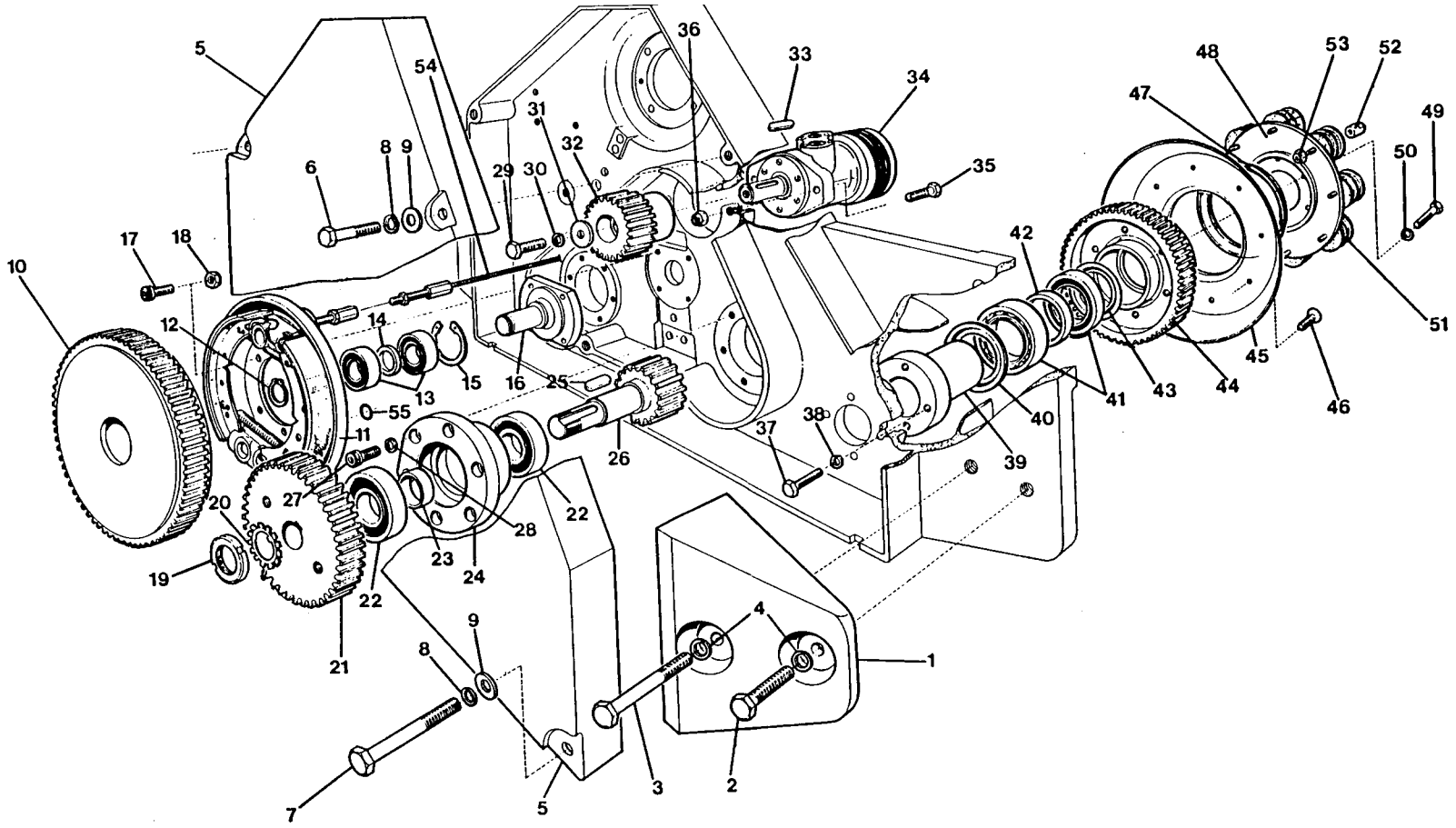
Drum Brake Assembly

Item	Part No.	Description	Qty.
	70228	**Brake Assembly**	**1**
		Comprising:	
1	70657	Backplate	1
2	70469	Brake Shoes	1pr
3	70658	Return Spring	1
4	70659	Return Spring	1
	70685	**Expander Assembly**	**1**
		Comprising:	
5	70660	Housing	1
6	70661	Plunger	1
7	70662	Plunger Pin	1
8	70663	Drawlink	1
9	70664	Locknut	1
10	70665	Barrel Nut	1
11	70666	Roller	1
12	70667	Tappet	1
13	70668	Retaining Clip	1
14	70669	Dust Cover	1
15	70670	Spring Plate	1
16	70671	Locking Plate	1
17	**70672**	**Adjuster Assembly**	**1**
		Comprising:	
18	70733	Washer	2
19	70674	Locknut	2
20	70734	Tappet	2
21	70676	Wedge Cone	2

Item	Part No.	Description	Qty.

REMARK:

Transmission Drive Assembly



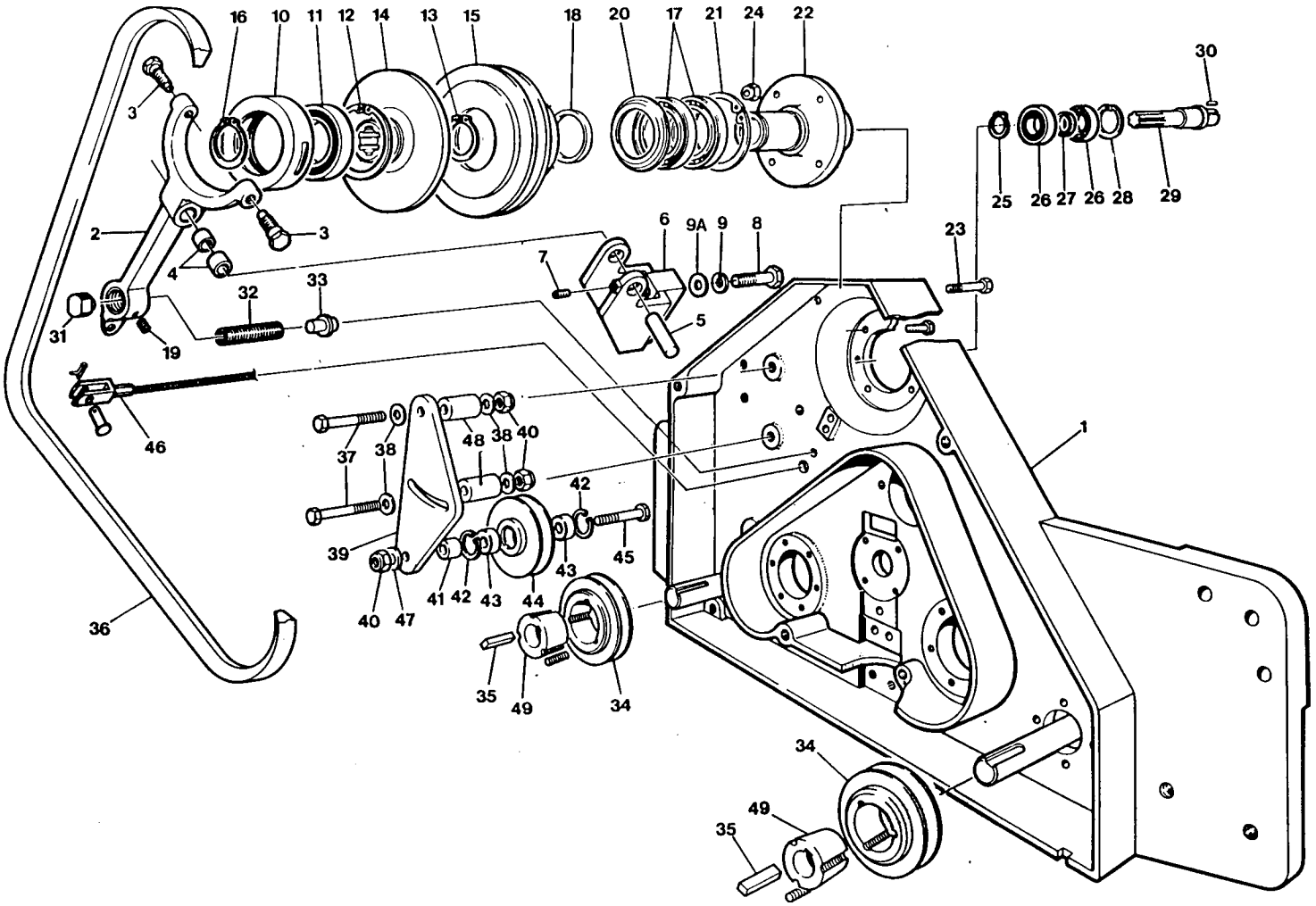
Transmission Drive Assembly

Item	Part No.	Description	Qty.
1	70320	Buffer	2
2	70113	Bolt	2
3	70678	Bolt	2
4	70130	Washer	4
5	70319	R.H. Side Cover	1
6	70680	Bolt	4
7	70681	Bolt	2
8	70130	Washer	6
9	70264	Washer	6
10	70294	Gear	1
11*	70228	Brake Assy Complete	1
12**	70580	Circlip	1
13	70578	Bearing	2
14	70305	Spacer	1
15	70528	Circlip	1
16	70292	Shaft	1
17	70727	Capscrew	4
18	70538	Nut	4
19	70143	Nut	2
20	70144	Washer	2
21	70291	Gear	2
22	70587	Bearing	4
23	70306	Spacer	2
24	70284	Housing	2
25	70131	Key	2
26	70276	Pinion	2
27	70645	Capscrew	12
28	70116	Washer	12
29	70129	Setscrew	1
30	70116	Washer	1
31	70303	Retaining Plate	1
32	70299	Pinion	1
33	70131	Key	1
34	70257	Hydraulic Motor	1
	70724	Seal Kit	1

Item	Part No.	Description	Qty.
35	70683	Setscrew	2
36	70684	Nut	2
37	70159	Setscrew	8
38	70128	Washer	8
39	70212	Hub	2
40	70207	Nilos Ring	2
41	70197	Bearing	4
42	70304	Spacer	2
43	70208	Nilos Ring	2
44	70297	Gear	2
45	70302	Sealing Plate	2
46	70686	Capscrew	16
47	70250	Seal Ring	2
48	70300	Drive Plate	2
49	70687	Bolt	12
50	70128	Washer	12
51	70431	A.V. Mount	16
52***	70219	Drive Pin	16
53	70117	Nut	16
54	70433	Brake Cable	1
55	70251	Sealing Washer	1

REMARK: *See Details pg. 7 **Was 1702-79 ***Loctite (638) to 70431

Vibrator Drive Assembly

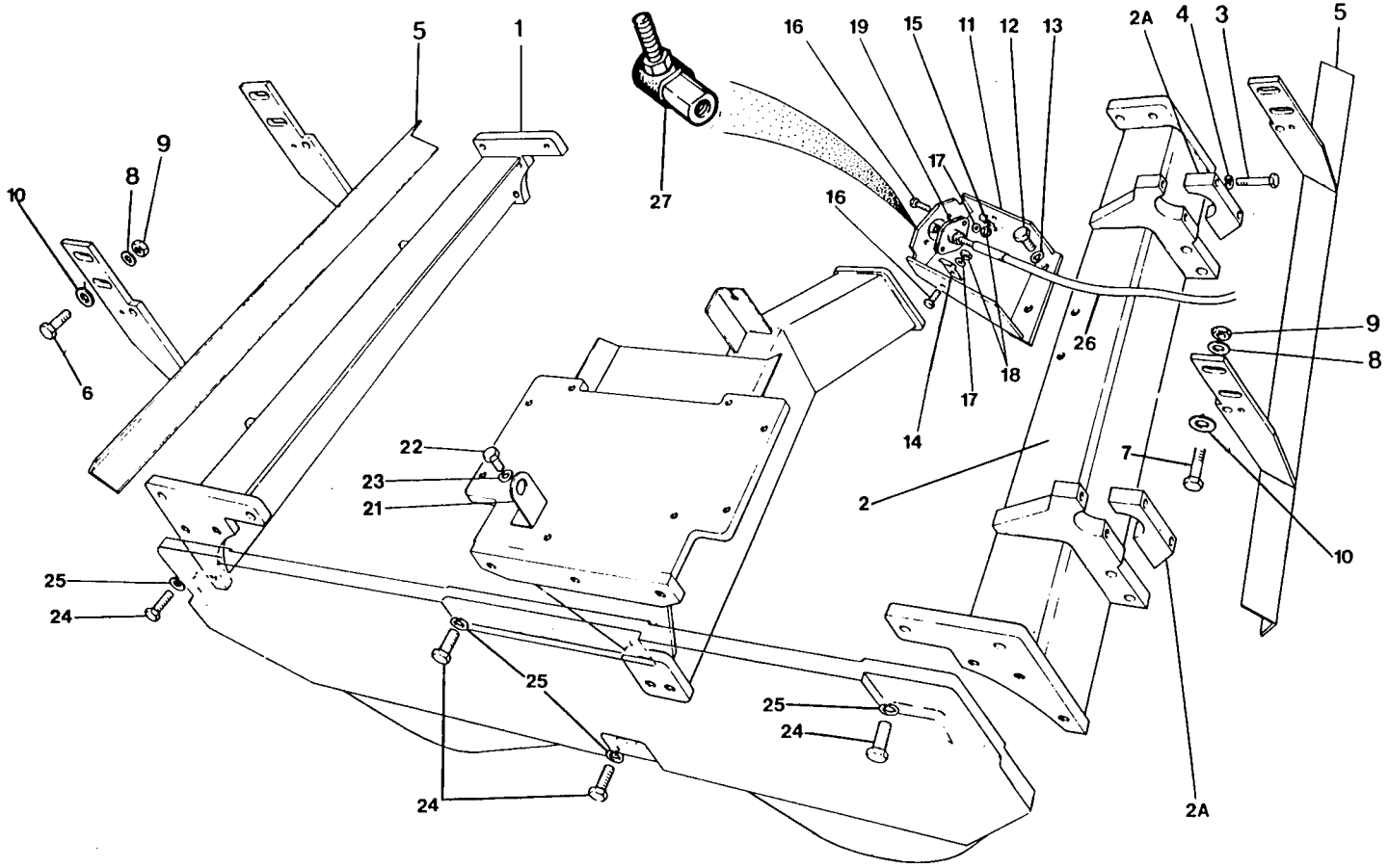


Vibrator Drive Assembly

Item	Part No.	Description	Qty.
1	70307	R.H. Side Plate	1
2	70274	Lever	1
3	70221	Screw	2
4	70173	Bush	2
5	70688	Dowel	1
6	70308	Pivot Block	1
7	70689	Grub Screw	1
8	70683	Bolt	2
9	70130	Washer	2
9A	70690	Washer	2
10	70222	Housing	1
11	70198	Bearing	1
12	70205	Circlip	1
13	70570	Circlip	1
14	70176	Clutch	1
15	70280	Pulley	1
16	70531	Circlip	1
17	70277	Bearing	2
18	70181	Spacer	1
19	70691	Capscrew	1
20	70408	Nilos Ring	1
21	70137	Circlip	1
22	70216	Hub	1
23	70625	Bolt	4
24	70538	Nut	4
25	70172	Circlip	1
26	70278	Bearing	2
27	70220	Spacer	1
28	70204	Circlip	1
29	70153	Bearing	1
30	70695	Key	1
31	70269	Spring Compressor	1
32	70430	Spring	1
33	70429	Spring Locator	1
34	70283	Pulley	2
35	70692	Key	2
36	70288	Drive Belt-Toothed	1
37	70693	Bolt	2
38	70263	Washer	4
39	70285	Mounting Plate	1
40	70684	Nut	3
41	70427	Spacer	1
42	70253	Circlip	2
43	70252	Bearing	2
44	70282	Pulley	1
45	70395	Bolt	1
46	70240	Cable	1
47	70690	Washer	3
48	70286	Spacer	2
49	70287	Bush	2
	70728	Packing Washer	16

REMARK:

Chassis Crossmember, Engine Platform and Scraper Bars



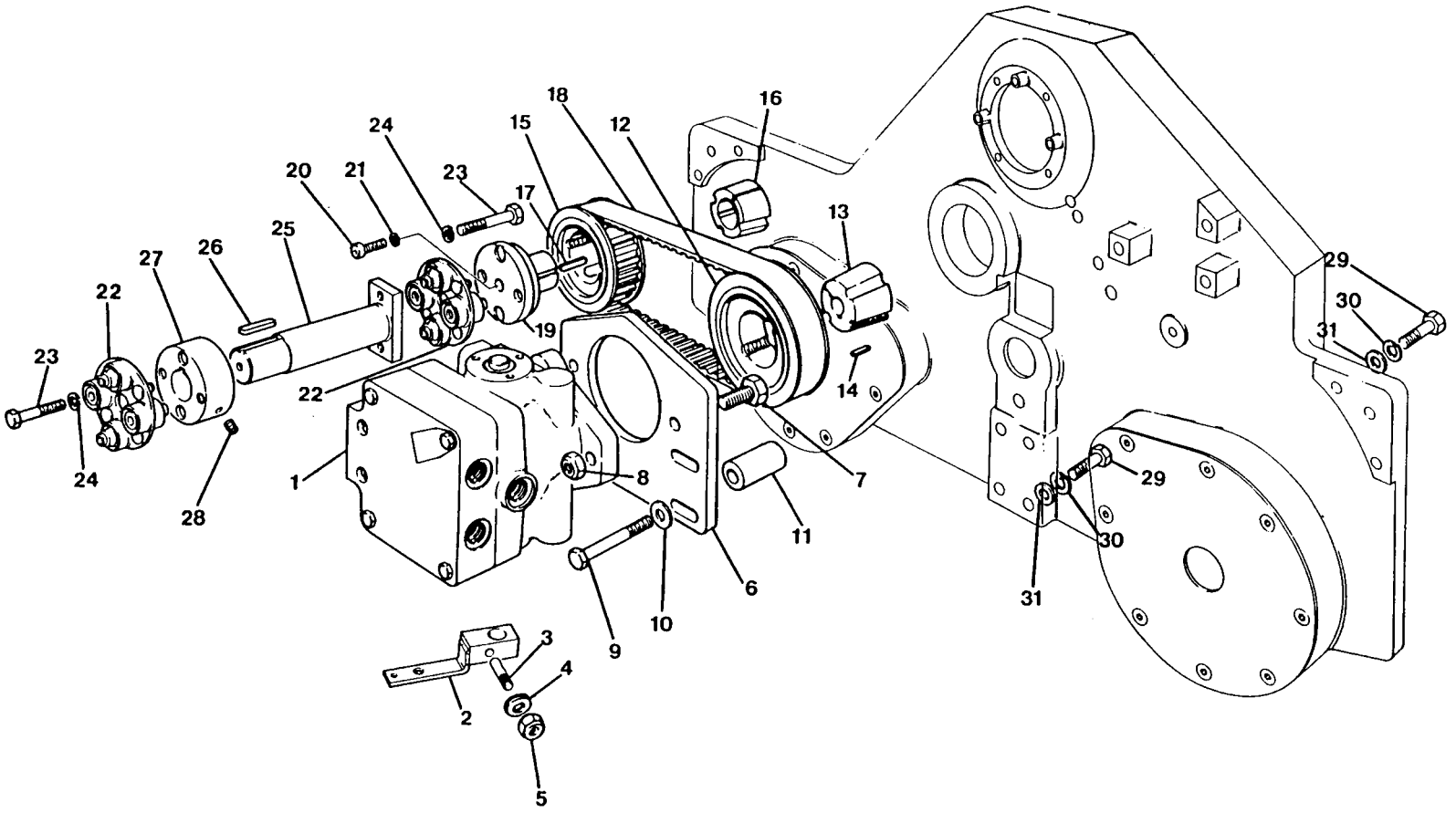
Chassis Crossmember, Engine Platform and Scraper Bars

Item	Part No.	Description	Qty.
1	70311	Crossmember	1
2	70312	Crossmember	1
	70312A	Clamp	2
3	70683	Bolt	4
4	70130	Washer	4
5	70231	Scraper Bar	2
6	70696	Bolt	4
7	70683	Bolt	4
8	70263	Washer	8
9	70684	Nut	8
10	70281	Washer	8
11	70328	Bracket	1
12	70555	Setscrew	2
13	70128	Washer	1
14	70568	Clip	1
15	70573	Clip	1
16	70123	Setscrew	4
17	70301	Washer	4
18	70620	Nut	4
19	70227	Bulkhead Swivel Assembly	2
21	70247	Bracket	1
22	70698	Setscrew	1
23	70130	Washer	1
24	70699	Setscrew	11
25	70130	Washer	11
26	70225	Cable	1
27	70700	Ball Joint	1

Item	Part No.	Description	Qty.

REMARK:

Hydraulic Pump and Vibrator Clutch Drive



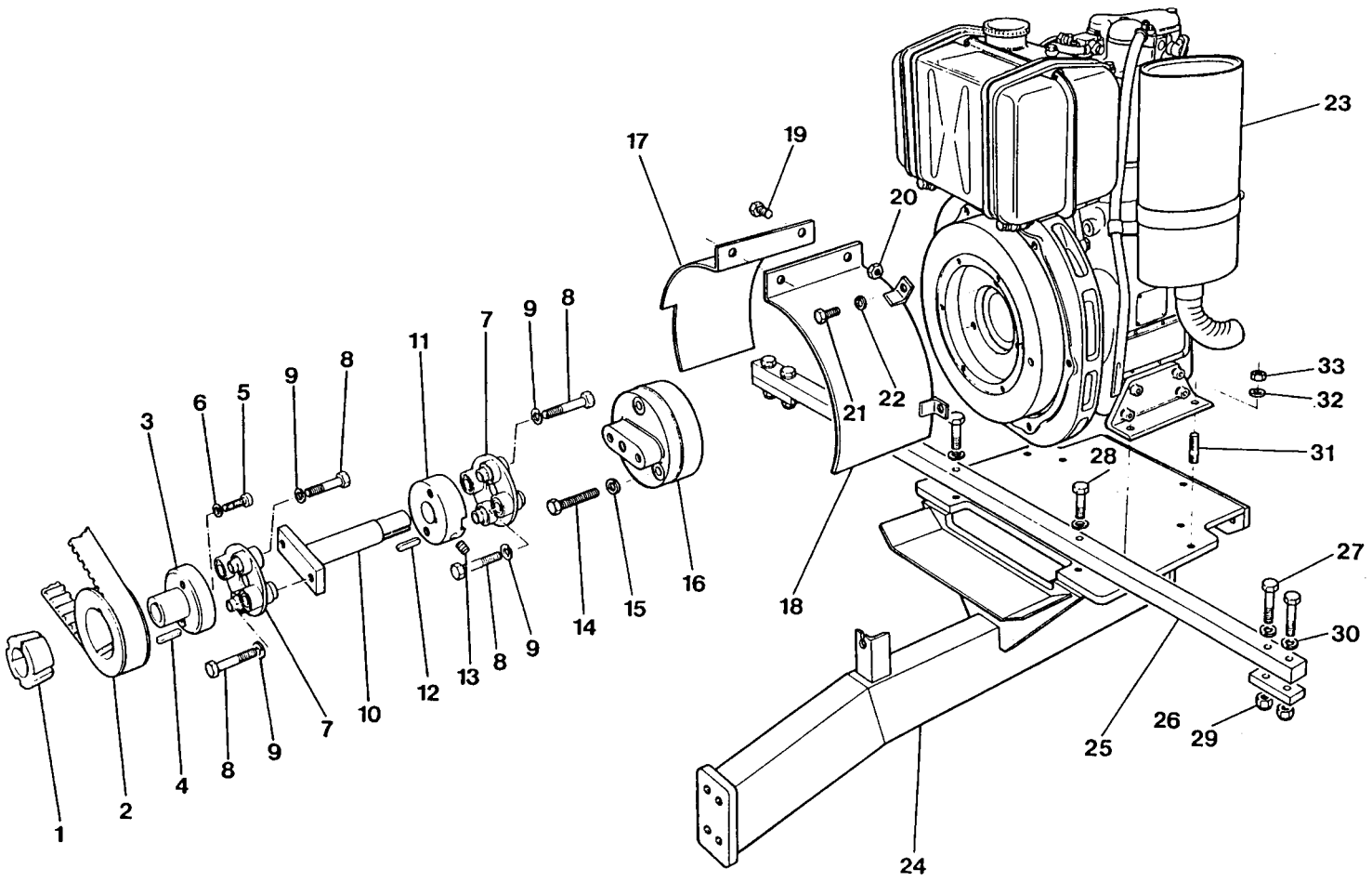
Hydraulic Pump and Vibrator Clutch Drive

Item	Part No.	Description	Qty.
1	70180	Hydraulic Pump	1
	70730	Seal Kit	1
2	70265	Lever	1
3	70266	Bolt	1
4	70122	Washer	1
5	70538	Nut	1
6	70271	Bracket	1
7	70702	Setscrew	2
8	70629	Nut	2
9	70681	Bolt	3
10	70263	Washer	3
11	70272	Spacer	3
12	70432	Pulley	1
13	70201	Bush	1
14	70695	Key	1
15*	70255	Pulley	1
16	70322	Bush	1
17	70703	Key	1
18	70174	Belt	1
19*	70325	Coupling	1
20*	70704	Capscrew	1
21*	70116	Washer	1
22*	70275	Coupling	2
23*	70705	Bolt	8
24*	70116	Washer	8
25*	70324	Drive Shaft	1
26*	70707	Key	1
27*	70310	Coupling	1
28	70597	Setscrew	1
29	70696	Bolt	10
30	70130	Washer	21
31	70690	Washer	10

Item	Part No.	Description	Qty.

REMARK: *Lister ST1 and Hatz Only

Engine and Accessories - Hatz ES786 Only



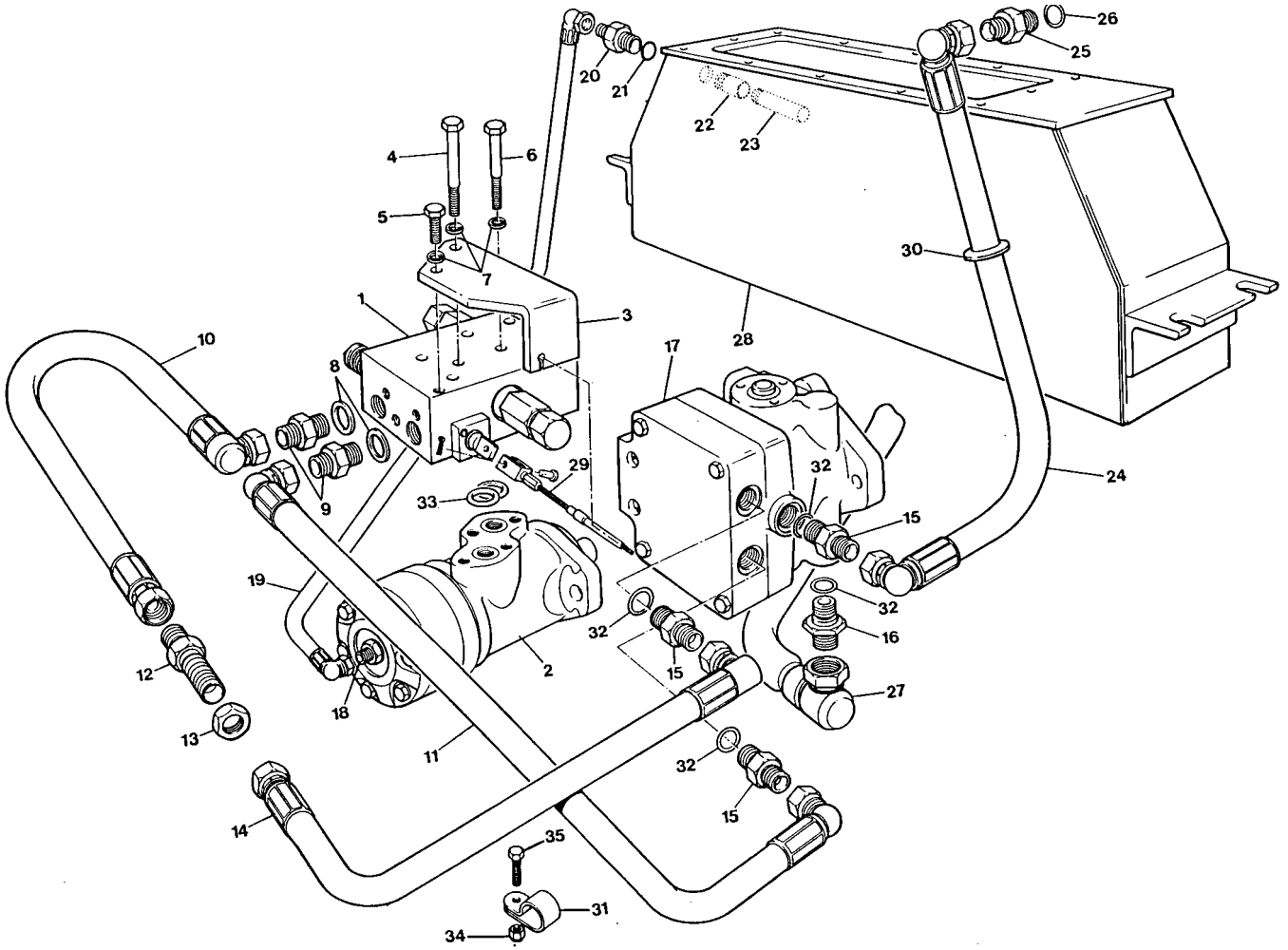
Engine and Accessories - Hatz ES786 Only

Item	Part No.	Description	Qty.
1	70322	Bush	1
2	70255	Pulley	1
3	70325	Coupling	1
4	70703	Key	1
5	70704	Capscrew	1
6	70116	Washer	1
7	70275	Coupling	2
8	70705	Bolt	8
9	70116	Washer	8
10	70324	Drive Shaft	1
11	70310	Coupling	1
12	70707	Key	1
13	70597	Setscrew	1
14	70120	Bolt	3
15	70116	Washer	3
16	70323	Coupling	1
17	70242	Guard	1
18	70243	Guard	1
19	70708	Setscrew	2
20	70538	Nut	2
21	70638	Setscrew	4
22	70128	Washer	4
23	70293	Engine	1
24	70289	Platform	1
25	70261	Steady Bar	1
26	70683	Bolt	4
27	70113	Bolt	2
28	70684	Nut	4
29	70130	Washer	6
30	70241	Stud	4
31	70281	Washer	4
32	70684	Nut	4

Item	Part No.	Description	Qty.

REMARK:

Hydraulic System - Valve, Motor and Pump

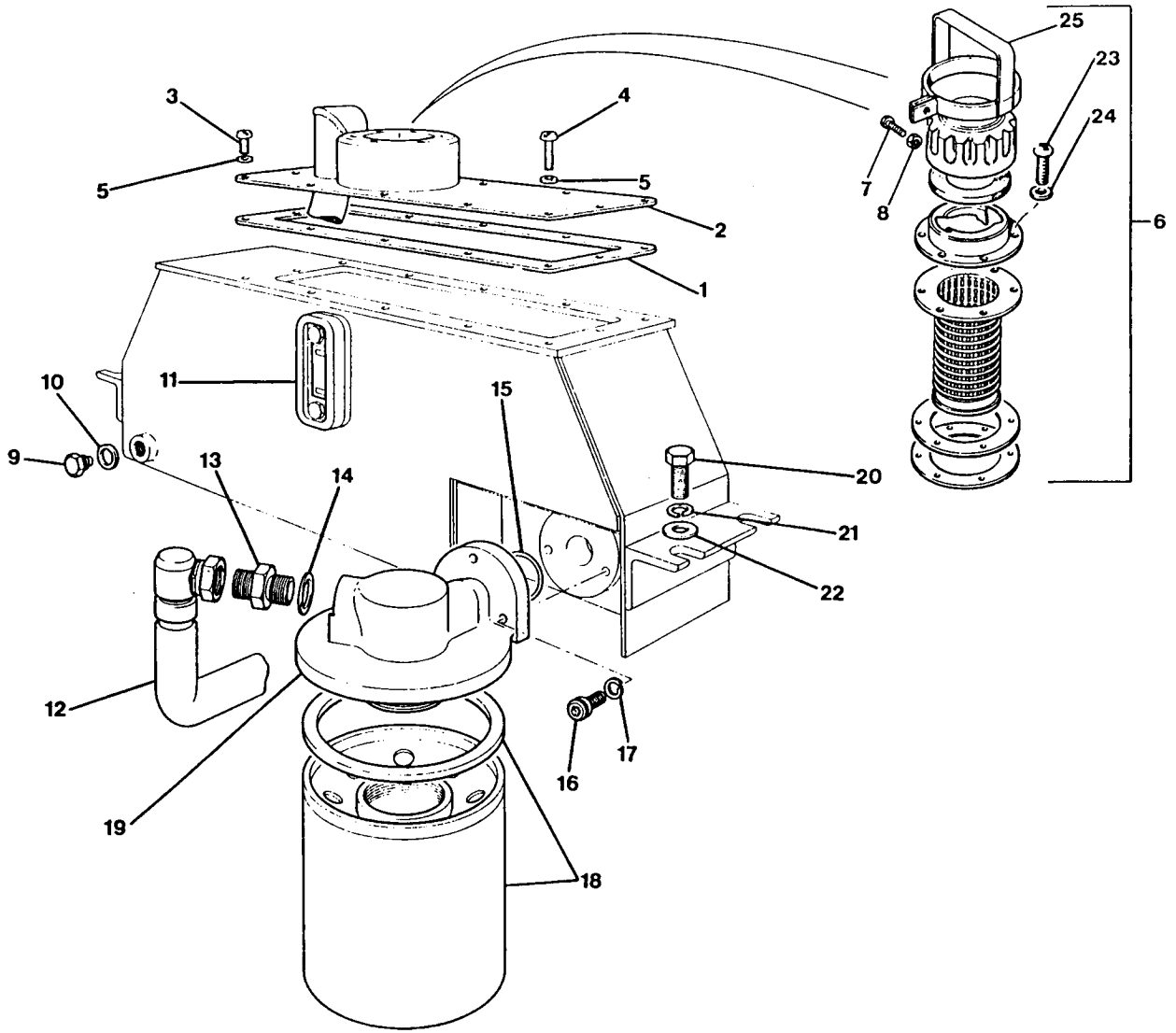


Hydraulic System - Valve, Motor and Pump

Item	Part No.	Description	Qty.
1	70389	Hydraulic Valve	1
	70650	Seal Kit	1
2	70257	Hydraulic Motor	1
	70724	Seal Kit	1
3	70238	Bracket	1
4	70709	Screw	3
5	70129	Setscrew	5
6	70598	Screw	2
7	70116	Washer	2
8	70577	Seal	1
9	70590	Adaptor	1
10	70529	Hose	1
11	70236	Hose	1
12	70576	Bulkhead Fitting	1
13	70569	Backnut	1
14	70529	Hose	1
15	70234	Adaptor	3
16	70162	Adaptor	1
17	70180	Hydraulic Pump	1
	70730	Seal Kit	1
18	70260	Union Body	1
19	70258	Hose	1
20	70268	Union Body	1
21	70581	Seal	1
22	70526	Socket	1
23	70259	Tube	1
24	70267	Hose	1
25	70590	Union Body	1
26	70577	Seal	1
27	70235	Hose	1
28	70246	Hydraulic Tank	1
29	70239	Cable	1
30	70583	Grommet	1
31	70256	Clip	1
32	70151	'O' Ring	4
33	70710	'O' Ring	2
34	70538	Nut	1
35	70129	Setscrew	1

REMARK:

Hydraulic System - Tank and Filters

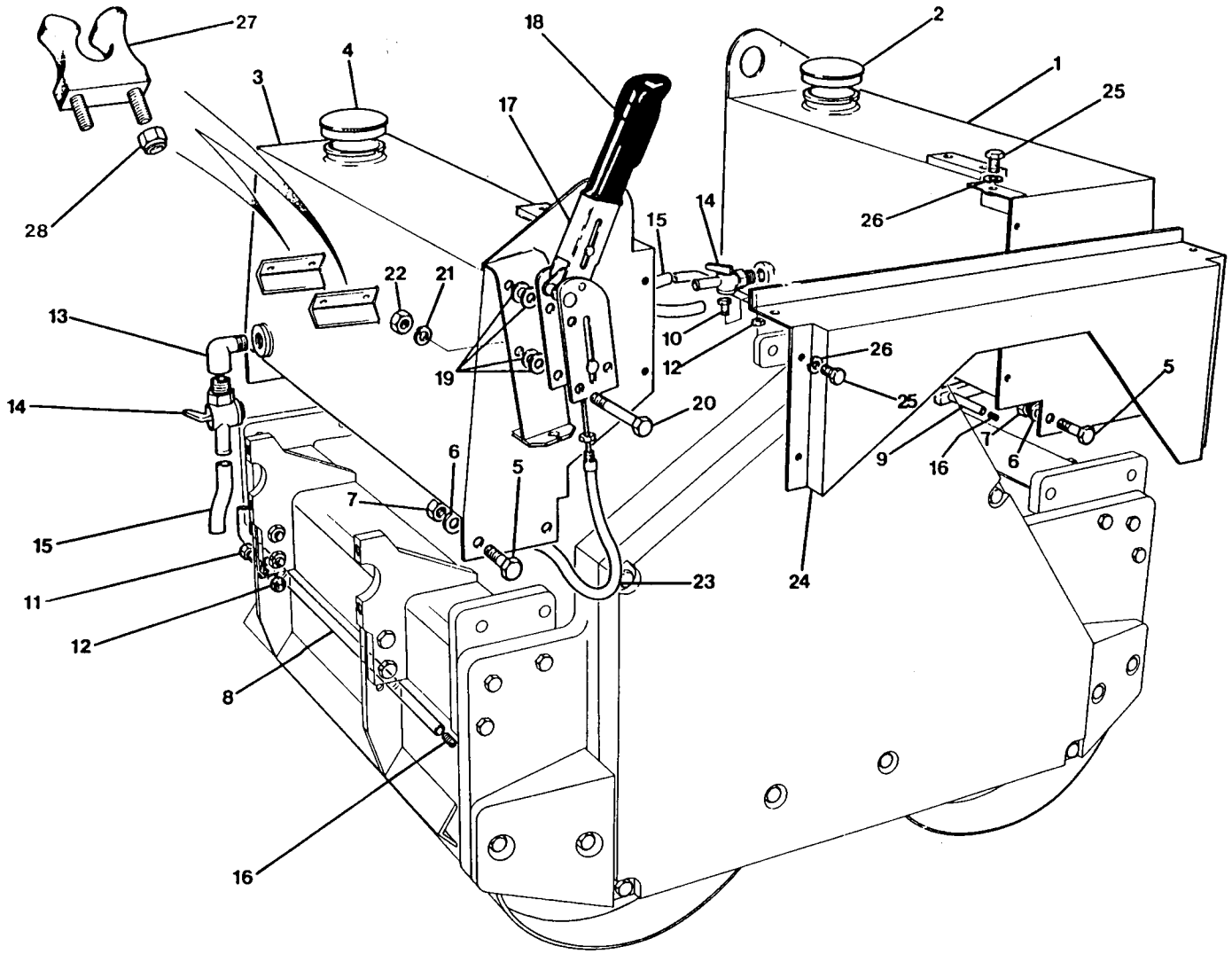


Hydraulic System - Tank and Filters

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	70215	Gasket	1				
2	70329	Lid	1				
3	70711	Setscrew	7				
4	70725	Setscrew	5				
5	70152	Seloc Washer	12				
6	70163	Filler Cap Assembly	1				
7	70596	Setscrew	1				
8	70538	Nut	1				
9	70145	Magnetic Drain Plug	1				
10	70577	Seal	1				
11	70233	Gauge	1				
	70251	Grommet	2				
12	70235	Hose	1				
13	70584	Union	1				
14	70585	Seal	1				
15	70232	'O' Ring	1				
16	70645	Capscrew	3				
17	70116	Washer	3				
18	70187	Filter Element	1				
19	70164	Filter Head	1				
20	70698	Setscrew	4				
21	70130	Washer	4				
22	70731	Washer	4				
23	70714	Screw	6				
24	70715	Washer	6				
25	70178	Locking Collar	1				

REMARK:

Water Tanks, Drive Guard and Spray Equipment



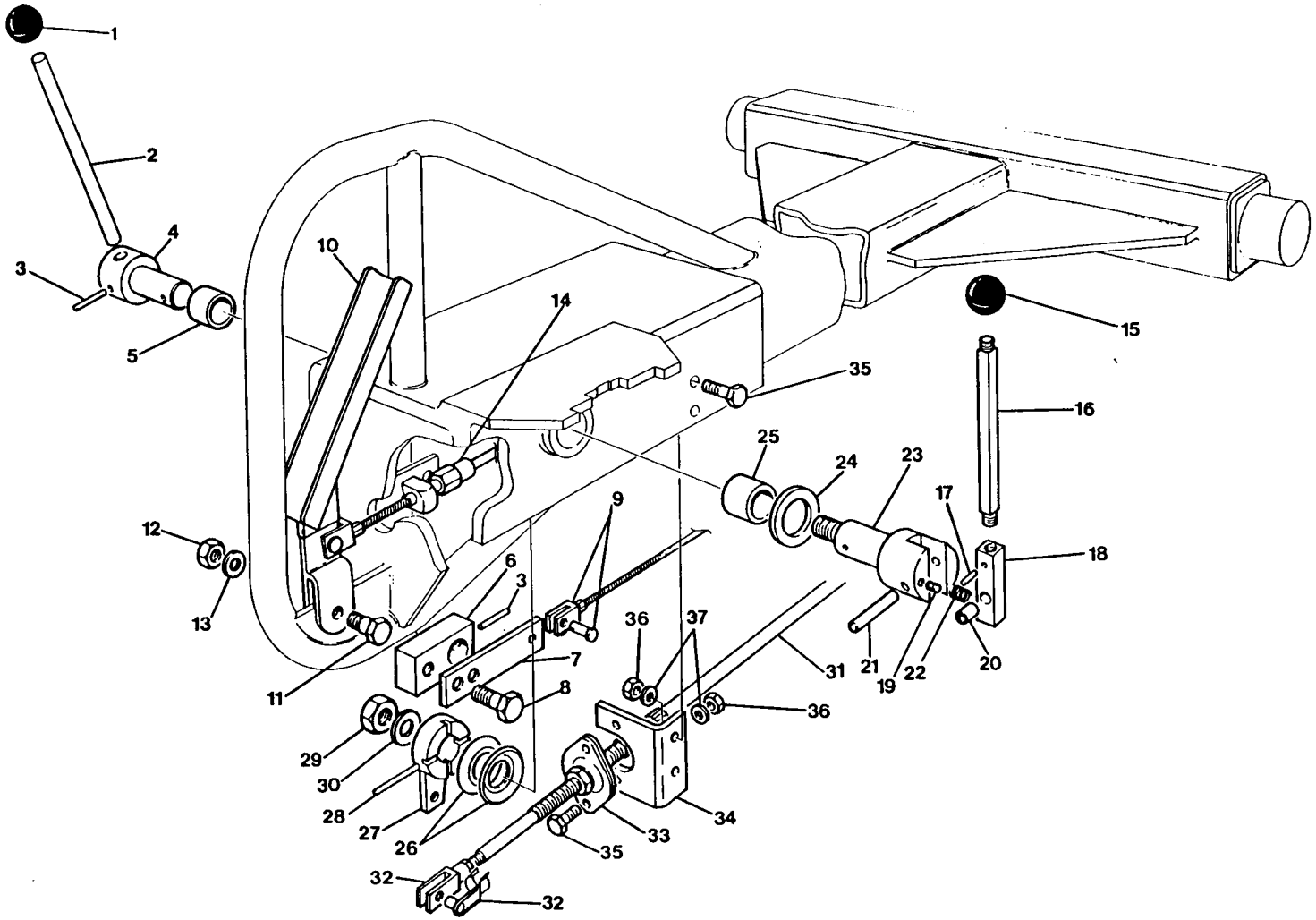
Water Tanks, Drive Guard and Spray Equipment

Item	Part No.	Description	Qty.
1	70313	Front Water Tank	1
2	70229	Filler Cap	1
3	70314	Rear Water Tank	1
4	70229	Filler Cap	1
5	70113	Bolt	8
6	70281	Washer	8
7	70684	Nut	8
8	70326	Rear Spray Bar	1
9	70327	Front Spray Bar	1
10	70716	Bolt	1
11	70123	Setscrew	1
12	70620	Nut	2
13	70523	Elbow	1
	70524	Bush	2
14	70192	Water Tap	2
15	70279	Hose	1
	70514	Hose Clip	4
16	70525	Plug	2
17	70530	Handbrake	1
18	70717	Handgrip	1
19	70309	Washer	6
20	70718	Bolt	3
21	70128	Washer	3
22	70117	Nut	3
23	70433	Cable	1
24	70254	Guard	1
25	70183	Setscrew	9
26	70631	Washer	9
27	70426	Starting Handle Clamp	2
28	70538	Nut	4

Item	Part No.	Description	Qty.

REMARK:

Steering Arm Controls

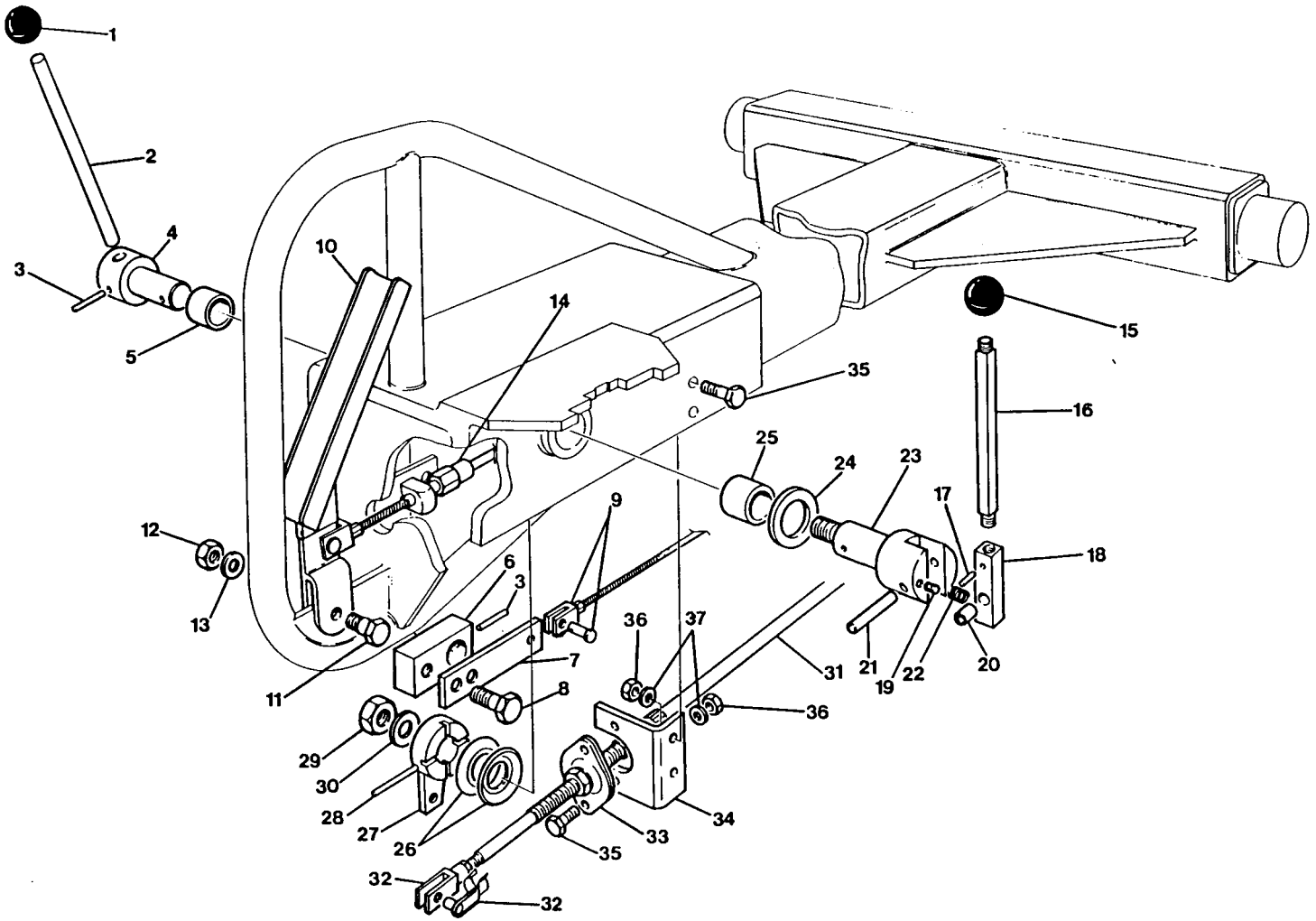


Steering Arm Controls Part Numbers

Item	Part No.	Description	Qty.
1	70148	Knob	1
2	70330	Rod	1
3	70622	Pin	2
4	70166	Pivot	1
5	70572	Bush	1
6	70160	Lever	1
7	70156	Link	1
8	70158	Link Bolt	1
9	70240	Cable	1
10	70245	Deadmans Lever	1
11	70244	Shoulder Bolt	1
12	70538	Nut	1
13	70122	Washer	1
14	70239	Cable	1
15	70148	Knob	1
16	70170	Lever	1
17	70622	Pin	1
18	70169	Pivot Block	1
19	70720	Setscrew	1
20	70173	Bush	1
21	70719	Dowel Pin	1
22	70230	Spring	1
23	70165	Pivot	1
24	70168	Friction Plate	1
25	70572	Bush	1
26	70206	Disc Springs	2
27	70224	Lever	1
28	70622	Pin	1
29	70684	Nut	1
30	70281	Washer	1
31	70225	Cable	1
32	70226	Clevis with Pin	1
33	70227	Bulkhead Swivel Assembly	1
34	70237	Bracket	1
35	70123	Bolt	6
36	70620	Nut	6
37	70301	Washer	6

REMARK:

Steering Arm



Steering Arm Part Numbers

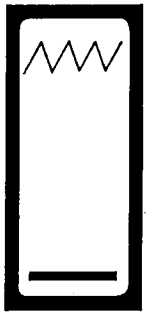
Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	70721	Steering Control Box	1				
2	70249	Steering Arm	1				
3	70726	Capscrew	6				
4	70128	Washer	6				
5	70534	For/Rev Legend Plate	1				
6	70540	Vibratory On/Off Legend Plate	1				
7	70644	Hammer Drive Screws	8				

REMARK:

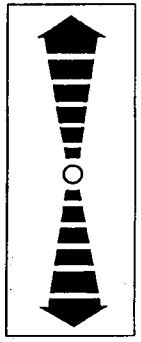
Decal Identification

FOR OPERATING AND MAINTENANCE INSTRUCTIONS, REFER TO HANDBOOK SUPPLIED WITH THIS MACHINE. FURTHER COPIES AVAILABLE ON REQUEST.

70561

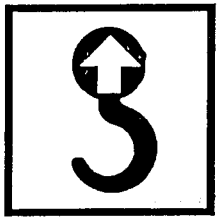


70540

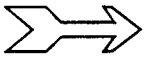


70534

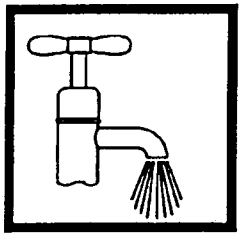
70541



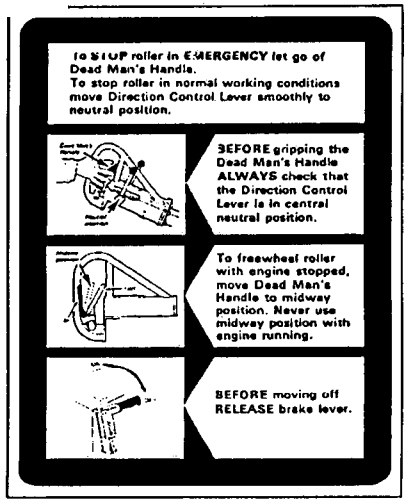
70546



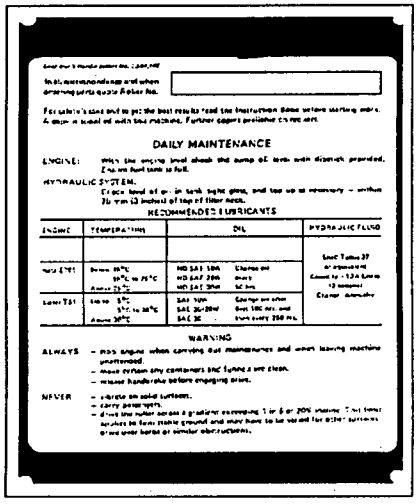
70553



70547


To STOP roller in EMERGENCY let go of Dead Man's Handle.
To stop roller in normal working conditions move Direction Control Lever smoothly to neutral position.
BEFORE gripping the Dead Man's Handle ALWAYS check that the Direction Control Lever is in central neutral position.
To freewheel roller with engine stopped, move Dead Man's Handle to midway position. Never use midway position with engine running.
BEFORE moving off RELEASE brake lever.

70532



70732

55201

Decal Identification

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	70534	Forward/Reverse	1				
2	70644	Screw	4				
3	70540	Vibrator On/Off	1				
4	70644	Screw	4				
5	70553	White Arrow	1				
6	70554	Hydraulic Oil	1				
7	70561	Refer to Handbook	1				
8	70541	Diesel Oil Only	1				
9	70722	Rivet	4				
10	55201	Stone	1				
11	70732	Instruction	1				
12	70558	Stone	1				
13	70152	Seloc Washer	2				
14	70532	Warning	1				
15	70546	Lifting Point	2				
16	70544	Ear Protection	1				
17	70547	Water On	1				

REMARK:

CALIFORNIA PROPOSITION 65 WARNING: Engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.